

# Life Sciences Companies See the Cloud as a Path to Product Innovation



**LIFE SCIENCES COMPANIES** are actively embracing the public cloud as a means to offload IT operations and turn attention to product innovation. Cost management remains an ongoing challenge, however, as the sector moves forward with its cloud migration journey.

Public cloud deployments are well underway at a growing number of life sciences companies. According to an exclusive IDG/Accenture AWS Business Group global research study on cloud optimization, respondents in this sector have already moved 35% of IT infrastructure and application workloads to the public cloud.

Unlike other sectors embracing the public cloud for cost benefits or to accelerate time to market, life sciences firms see cloud deployment as a way to focus resources on core products and expertise, not IT deployments — an upside cited by 69% of industry respondents. At the same time, 65% of life sciences companies surveyed said the cloud's ability to deliver on-demand scalability was another important lever for cloud investment.

"It's a unique fit for this industry to conduct experimentation cycles in science and innovation unbridled by the traditional constraints of large IT deployments," explains Mark Johnston, director of global business development for healthcare, life sciences, and agricultural technology at AWS. "You can have an idea, tap the [required technology] resources on demand, and experiment to determine whether it's viable before making a large-scale commitment."

Like other industries, life sciences companies view cloud as a way to modernize and foster transformation: More than one-third of all respondents said cloud deployments have facilitated effective internal collaboration and improved process standardization, both bedrocks for innovation. Moreover, the cloud serves as an intermediary platform enabling organizations to take collaboration beyond their four walls to an extended partner ecosystem, which is essential for developing innovative therapies and drug discoveries.

Respondents also said cloud platforms pave the way for leveraging new technologies in areas like machine learning and artificial intelligence (AI) to enable real-time ingestion and analysis of data — another key element for product development and exploration.

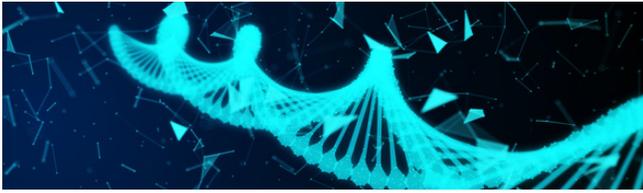
Joe Donahue, managing director, global life sciences research and development practice at Accenture, notes:

The cloud has evolved from the place where we only stored our data to a platform for delivering new capabilities. You can deploy new technologies like machine learning and AI to facilitate high throughout data interpretation and quickly uncover



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correlations that can help speed up the drug discovery process. The cloud provides a way to deploy those technologies much faster than you could do on-premises.

By clearing the decks for transformation, cloud platforms also help organizations build and monetize new data-driven products and services designed to boost customer satisfaction. Nearly half of the companies participating in the IDG/Accenture AWS Business Group survey reported quantifiable improvements in customer satisfaction as a result of cloud deployment strategies.

**Steps to success**

Despite their enthusiasm for the cloud, challenges remain. Fifty-three percent of life sciences companies were grappling with managing costs as a top cloud issue; integrating data security was another big hurdle, cited by the same group. By applying traditional enterprise governance and controls to cloud implementations, however, organizations can contain costs successfully and optimize the utilization of services.

Aside from concerns about managing cloud costs, life sciences companies were much more confident than other sectors in addressing other pressing issues related to cloud deployments. Specifically, life science firms ranked challenges such as compliance/legal risk management (21%), cloud governance (21%), achieving operational efficiency (21%), and scaling to meet business needs (16%) far lower than other industry sectors, indicating they are addressing key concerns.

As with other sectors, finding the right mix of cloud skills remains a major obstacle. Security integration expertise is hard to find for 58% of life sciences respondents, and in-house vendor management skills presented a bigger gap for companies in this space (42%) compared to other sectors. Risk management expertise remains an issue across the board, specifically for 42% of life sciences respondents.

To address these challenges and ensure success with cloud deployments, companies in the life sciences space are more likely to leverage expertise from third-party partners, particularly in the area of security integration skills (31%). Firms in this sector are also fully committed to DevOps practices as they reorganize

and shift culture to be more cloud-friendly. Forty-three percent of survey respondents in the field are embracing DevOps for at least half of their application projects. In fact, 19% of life sciences companies are using DevOps practices for all projects.

The embrace of DevOps is already improving collaboration between IT and development teams: Respondents onboard with DevOps characterize collaboration as “very good” (22%) compared to only 7% at companies slower to embrace the model.

Like companies in other sectors, life sciences firms are promoting employee education to drive acceptance of cloud computing. Yet, companies in this space were more likely to pitch the freedom to work from anywhere at any time as a way to garner acceptance — cited by 63% of life sciences respondents, compared to 37% of the overall survey group.

Robust security was another perceived benefit of the cloud. Sixty-eight percent of life sciences respondents most likely or strongly agreed that cloud providers offer better levels of security than in-house IT organizations, while 79% were confident that cloud providers had a deeper level of data security expertise. The leading measurements for success with the cloud for life sciences firms were agility and faster time to market (53%), with improved customer satisfaction (26%) and increased adoption rates (26%) far less important barometers for success.

Cloud deployment is also serving as a springboard for life sciences companies to implement optimization strategies. Among them, refining or replacing chargeback models ranked highest at 47%, followed by acquiring expertise in compliance security and risk management (42%), improving IT/business collaboration (37%), and educating internal groups (37%).

**The bottom line**

In the end, however, cloud’s scalability and collaboration benefits have the most impact in transforming what has historically been a laborious and very expensive innovation and discovery process. By making the shift to cloud computing, life sciences companies are able to connect the dots much more effectively as they advance on the path to innovation.

[Click here to learn more.](#)

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